

**SEE "BZ" INSTRUCTIONS HEREWITH**

# **Installation, Adjustment & Service Instructions for "B" SERIES CHAMBERS GAS RANGES**

**(11-B, 12-B, 14-B, 15-B, 15-B-IB)**

**DELIVERY TO DEALER OR DISTRIBUTOR:** All shipments are made F. O. B. Shelbyville and any claims for damage must be filed by the consignee. It is important that each range be carefully inspected at the time it is received by the dealer or distributor. Porcelain panels can be inspected easily through the crate openings and notation of any damage made on the freight bill. If necessary, a representative of the delivering carrier can be called in to make his own inspection and report, which can be supplemented by the usual formal claim. Damage of concealed nature (that is, not noticeable until the time of uncrating) can be called to the attention of the carrier in the same manner by notification of intent to file claim. Any papers necessary in the filing of a concealed damage claim will be furnished by Chambers Corporation upon application.

## **CORRECT INSTALLATION PROCEDURE**

**REMOVE CRATE:** Saw off eight crate uprights: one on each corner, two in front and two in the rear. Pull two accessible single nails on each end. The entire crate, with the exception of the bottom, can now be lifted from the range. Break metal band and remove baffle plate from crate. Break metal band holding base panels and top cover. The cloth bag containing leg bolts, nuts, spacers and rear base brackets (R & L) is found in the Thermowell.

**PUT ON LEG BOLTS:** Tie down folding top cover with a heavy cord. On the Silverlite top cover (piano hinge type) this can be done by tying the cord front to back around the griddle lift handle on the front and the spring bar reinforcement on the rear. On the Standard top cover, the center front top cover reinforcement can be used. Lay range on a small pair of trestles on its back, being careful not to damage body back. Remove four bolts holding crate bottom to range. These crating bolts should be saved, accumulated and returned to distributor for ultimate return to the factory. Place lock nuts on leg bolts and thread into tapped holes next to the square holes from which crate bottom bolts were removed. Make sure lock nuts are tightened against corner gussets. The range can now be placed on its legs.

**PUT ON SILVERLITE BACK:** The Silverlite back, when unpacked from the carton, is completely assembled, ready to be installed on the range. Bolts and spacers are in a small cloth bag. Remove the two top bolts and crab washers on each side of the body back. Loosen two bolts in center of body back. With a screw driver, force the two reinforcements, welded to the body back, away from the cooking top, to provide space between body back and cooking top. Place completely assembled Silverlite back on the range, making sure that the porcelain is against the cooking top. Place spacers on the four

long bolts and properly locate through the clearance hole visible from the outer black panel of the Silverlite back. Thread these bolts a short distance into the cast-iron cooking top, but do not tighten until the two angles attached to the outer edge of the Silverlite back have been tightened. Fasten the angle on each side of the Silverlite back to the cooking top with bolts provided. Then use the same two bolts and crab washers, previously removed, to fasten the lower part of the angle to the range. Tighten the four long bolts with sleeves until porcelain is against cooking top. Also tighten the two bolts located in the center of the body back. Silverlite back assembly should now be secure on the range.

**PUT ON STANDARD BACK:** This back is bolted on by four bolts through the back brackets into four tapped holes in the cross flue. Back is complete, ready for assembly, when removed from the carton. To align back with range, adjust with two small bolts on each bracket. Leave  $\frac{1}{8}$ " space between back and top cover-balustrade.

**MAKE GAS HOOK-UP:** The gas hook-up should be made with  $\frac{3}{8}$ " copper or aluminum tubing with proper connections and fittings. The gas pipe from the meter should be placed close to the baseboard to allow range to be installed as close to the wall as manifold will permit. The aluminum tubing should be connected to range manifold and gas pipe while range is a short distance from the wall. Under no circumstances should the tubing go through the floor. After connections have been tightened, range can be pushed against the wall.

**LEVEL RANGE:** First loosen lock nuts on the adjustable leg bolts; then use a wrench on the square shoulders of the leg bolts to turn them to desired height. Check sides of cooking top with a level at least 9" long. Make three top burner grates as level as possible in both directions. Then check oven rack. There is  $\frac{1}{2}$ " adjustment on oven rack runners for leveling racks. After range is level, tighten lock nuts against range frame, making sure leg bolts do not move in the process.

**PUT ON BASE:** There are three black base panels: one front and two ends. Necessary bolts and base brackets are in cloth bag in Thermowell. Base end panels are interchangeable and should be fastened to front base panel with bolts provided. Place base brackets on rear of frame with bolts threaded into two tapped holes located on lower part of frame. These brackets are not interchangeable. The small folded edge must protrude forward to receive the clip attached to base end panel. Place completely assembled base under the range, making sure base end panels slip onto brackets. Fasten front base panel to range frame with two hexagon bolts provided. These screw vertically into frame.



## BURNER ADJUSTMENTS

Ranges equipped at the factory for liquefied petroleum gas require no gas adjustment of oven, broiler, Thermowell and top burners; they have fixed orifices. Height of gas flame is slightly lower than for city gases. However, usual air, pilot and by-pass adjustments must be made.

**OVEN BURNER:** Set thermostat dial at 400°; light oven burner and turn gas on full. Adjust flame by moving air shutter and orifice cap until there is a  $\frac{3}{4}$ " soft blue cone on each port.

**OVEN SAFETY PILOT:** Adjust safety pilot by moving the adjustment pin, located on the right underneath side of the thermostat, inside service cabinet. This yellow flame should be about  $\frac{1}{2}$ " high, should touch lead-up holes on front of oven burner to ignite burner if necessary. This adjustment can be made by hand, without a screw driver.

**OVEN BY-PASS:** Turn thermostat dial to 70°. Adjust by-pass by moving adjustment pin on left underneath side of thermostat, inside service cabinet, to about  $\frac{1}{8}$ " flame. This minimum flame should continue to burn when oven door is opened and closed normally.

**THERMOSTAT:** It is not necessary to check thermostat by placing thermometer in oven. Thermostat has been calibrated carefully by manufacturer and should not be changed unless difficulty arises.

**BROILER BURNER:** Light broiler burner and turn gas on full. Adjust flame by moving mixer shutter and orifice cap until there is a  $\frac{3}{4}$ " soft blue cone on each port. Griddle and Sizzling Platter should be moved up and down to check mechanical smoothness.

**TOP BURNER AND THERMOWELL PILOTS:** Adjustment screws for top and Thermowell pilots are on the manifold inside range. Adjust both pilots to about  $\frac{1}{2}$ " height. These have no air adjustment; therefore burn with slightly yellow tip. Apply heat to pilot petcocks to burn out excess lubricant; make final adjustments.

**THERMOWELL BURNER:** Turn Thermowell burner on full and adjust flame by moving mixer shutter and orifice cap until a  $\frac{3}{8}$ " soft blue cone is obtained. Loosen the wing nut on mixer shutter bolt to make this adjustment; tighten wing nut after final adjustment.

**TOP BURNER:** Turn top burner on full and adjust flame by moving mixer shutter and orifice cap until  $\frac{3}{8}$ " soft blue cone is obtained. Loosen wing nut on mixer shutter bolt to make this adjustment; tighten wing nut after final adjustment. Be sure flash tubes are in place.

**BURNER INPUT:** For the convenience of those having a meter at their disposal, the following BTU ratings should be secured:

Thermowell and Top burners	9,000 BTU
Oven and Broiler burners	21,000 BTU

**CHECK FOR LEAKS:** All joints on range and on tubing hook-up should be checked with gas on. This can be done with soap suds or a pressure gauge.

**IMPORTANT:** Patented flue caps carrying water cups or packed with steel wool, etc, should never be

tolerated, as they frequently obstruct ventilation necessary for proper combustion in the oven.

## REPLACEMENT OF PANELS

**SERVICE POLICY:** Porcelain enamel is essentially glass and is therefore breakable like any ordinary piece of glassware. Before ranges leave the factory they are thoroughly inspected and are in A-1 condition when turned over to the transportation companies.

We cannot assume responsibility for damaged enamel and accordingly suggest that dealers (for self-protection) file claim locally with the delivering carrier for any porcelain damage that may show upon delivery. By following this procedure, full recovery for the value of parts involved may be obtained from the transportation company.

Credit cannot be allowed for chipped porcelain; therefore, please do not return such parts to the factory as they will not be accepted. No parts are to be returned without approval of authorized factory representatives or written factory authority. In such case it is understood that returns will be made prepaid.

**MAIN FRONT PANEL:** The porcelain front is held in place by five bolts—two at the top, two at the bottom and one located on the left side of the thermostat. One is reached through the hole in the front of the broiler box on the left side; one through the right top burner hole on the right hand side. The one by the thermostat may be reached from the cabinet compartment. The two bottom nuts are found: one in the inside cabinet front which can be reached in the cabinet compartment, and the other one in the cast oven front under the baffle plate in the oven. By loosening the set screws of the griddle lift handle, the broiler lift handle, the thermostat dial and handle, and the six gas valve handles, these can be removed easily. The thumb plates can be removed singly by lifting and pulling outward on them at the same time. The oven door keeper is taken off by inserting a long pin in the hole in the flat side and backing it off the threaded stud on which it is mounted.

**END PANELS:** The two porcelain end panels are interchangeable. They can easily be taken off by loosening two hexagon nuts from the bottom edge of each panel, pulling it out at bottom, and letting it slide down from under the cooking top. On the 15-B-1B model the two end panels are not interchangeable, but are removed in the same manner as described above.

**OUTSIDE OVEN DOOR PANEL:** Remove the inside oven door lining by taking out the four bolts and asbestos washers from the four corners of the lining, also the entire amount of rock wool. The oven door handle block is removed by taking out the three bolts, being careful not to lose the small sleeves which fit between the door block and the cast iron door frame on the two top bolts. Remove four nuts at the corners of the cast frame.

**IMPORTANT!** When replacing this panel and packing the rock wool in the door, the wool must be evenly and carefully distributed for the proper retention of heat.



**CABINET DOOR PANEL:** First, release the two springs which are attached to the cabinet door hinge leaf, then remove the four bolts and asbestos washers from the inside cabinet door lining.

**STANDARD TOP COVERS (11-B and 12-B):** Release the two springs on the rear of the range and remove from each hinge two bolts which hold hinges to the cooking top. The top cover as a unit can then be removed. If necessary, the balustrade can be removed by taking out one small bolt at each end. Either half of the top cover can be dismantled by removing the small screws holding reinforcements to top cover, while the assembly is inverted upon some clean, smooth surface.

**SILVERLITE TOP COVERS (14-B, 15-B and 15-B-IB):** This top cover can be removed by taking out two bolts in each of the back hinges located in the back edge of the cooking top. It can be dismantled by removing six bolts from each section of liner.

**SILVERLITE BACK:** All assembly bolts are visible and easily accessible for dismantling this back.

**CHANGEOVERS:** When changing from natural gas to manufactured or mixed, or vice versa, it is only necessary to change all orifice caps.

When changing to liquefied petroleum gas, the top burners and drip rings must be replaced, and the position of the burners raised by adjustment of the top burner brackets. The Thermowell burner should be changed and both Thermowell and top burner pilots disconnected and removed, unless pilots are to be used. All orifice caps must be changed and needle points removed from mixer pins. The reverse is true when changing to some other gas from liquefied petroleum gas.

When installing fixed orifice caps for liquefied petroleum gas a drop of shellac should be placed on the mixer pin to seal the cap in place and prevent leakage. Also, all joints, connections and gas cocks should be carefully rechecked for leaks.

### **DISMANTLING OF ASSEMBLIES, ETC.**

**CROSS FLUE:** The cross flue is held in place by three bolts on the bottom edge, and two on the top through the projecting ends of the flue reinforcements into the cooking top. When the range has a Silverlite back, these latter two bolts are two of the four by which the back is bolted to the top, as described elsewhere.

**BODY BACK:** The body back is held in position by ten bolts: three on each side of the range in the corner vertical angles, two through the reinforcements into the cooking top, and two long bolts in the center of the oven.

**COOKING TOP:** Remove back assembly, also the cross flue and body back. The porcelain main front panel must be removed, as described elsewhere, also the left end panel. Take out all top burners, grates and drip rings; the Thermowell burner and grate; and the broiler burner, pan, and griddle.

The cooking top is held in place by three hexagon head bolts in the front and two oval head bolts at the extreme rear corners. The left front bolt can be easily reached through the square hole in the front of the broiler box where

the head is visible; the center front bolt through the left front burner opening; and the right front bolt through the right front burner opening. Disconnect all tubing (except that of the oven) from the mixer pins, including the tubing of the top and Thermowell pilots. The Thermowell damper connecting rod which runs from the valve handle to the damper in the rear must be unscrewed from the cross thread rivet stud in the damper lever. One bolt located just to the left of the broiler adjusting handle shaft at the front of the range must be withdrawn also.

The broiler burner counterbalance spring must be disconnected by backing off the two lock nuts where they project at the left edge of the front top channel just below the broiler box. Take out one of the bolts holding the broiler burner shaft end spring retainer, releasing the spring so it can be taken out.

The complete top assembly can be moved straight back about four or five inches and lifted from the range. Be sure the broiler burner shaft is held in close to the broiler box so that it does not catch on the left body end. If necessary, the body end can be pulled out a little to allow the end of this shaft to pass.

When removing the broiler box or Thermowell assembly, the top should be inverted on some clean, smooth surface.

**CARE OF COOKING TOP:** Anything spilled on the top when it is in use should be wiped off as soon as possible with a damp cloth. Do not use cold water if the top is hot.

**BROILER BOX:** The broiler box can be removed from the top by taking out seven bolts: three on each side and one at the front.

**THERMOWELL UNIT:** The Thermowell is held in place by three bolts: two at the rear and one at the front. The Thermowell inside hull can be removed from the outside hull by taking off the outside bottom, the damper, and removing the rock wool.

**OVEN DOOR:** Remove oven door panel as described above. This exposes the ends of the split rivets which connect the stop rods to the cast oven door frame as well as those by which the door frame is attached to the inside cast oven front. Compress split ends and withdraw rivets, but do not let rod spring back through slot into inside of range.

**OVEN DOOR SPRINGS:** The springs can be withdrawn from the back of the range after the body back has been taken off. They are held in place by two nuts on the rear ends of each of the door stop rods. Remove these nuts, pull the housing out slightly until the spring can be reached, then withdraw the spring without letting the door stop rod slip back through slot in the cast oven front.

**TOP PILOT:** Disconnect the aluminum gas tube from the petcock at the manifold, also remove the flash tubes. Take out the two screws which hold the top pilot bracket to the cooking top, thus freeing the pilot assembly. Of course, if the pilot is to be removed permanently, the petcock should be removed from the filter or manifold and the hole plugged with a 1/8" pipe plug.



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